SGS-THOMSON MICROELECTRONICS

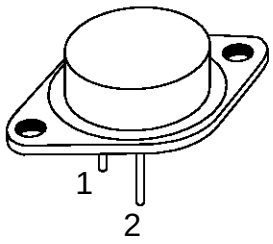
MJ2955

SILICON PNPSWITCHING TRANSISTOR

- SGS-THOMSON PREFERRED SALESTYPE

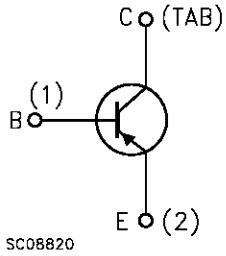
DESCRIPTION

The MJ2955 is a silicon epitaxial-base planar PNP transistors in TO-3 metal case, intented for power switching circuits, series and shunt regulators, output stages and hi-fi amplifiers.



TO-3

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage (I_E = 0)	- 100	V
V_{CER}	Collector-Emitter Voltage (RBE ≤ 100Ω)	- 70	V
V_{CEO}	Collector-emitter Voltage (I_B = 0)	- 60	V
V_{EBO}	Emitter-base Voltage (I_C = 0)	- 7	V
I_C	Collector Current	- 15	A
I_B	Base Current	- 7	A
P_{tot}	Total Dissipation at T_c ≤ 25 °C	150	W
T_{stg}	Storage Temperature	-65 to 200	°C
T_j	Max. Operating Junction Temperature	200	°C

THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	1.17	$^oC/W$

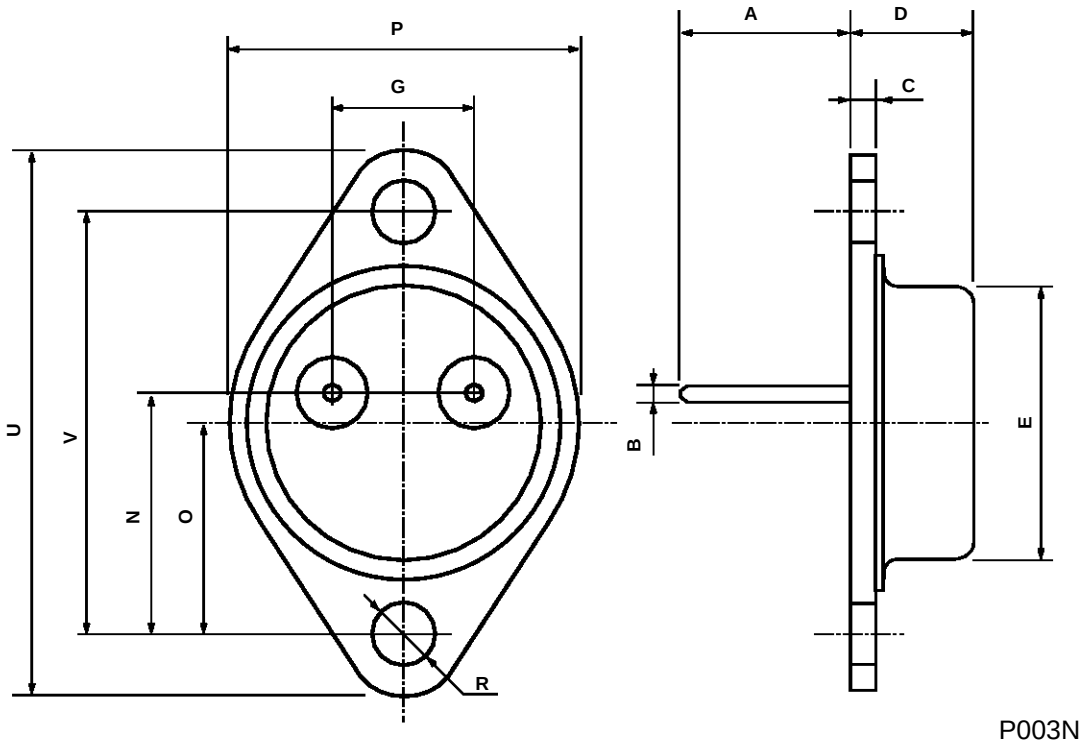
ELECTRICAL CHARACTERISTICS (T_{case} = 25 ^oC unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CEX}	Collector Cut-off Current (V_{BE} = 1.5V)	V_{CB} = -100 V V_{CB} = -100 V T_{case} = 150 ^oC			- 1 - 5	mA mA
I_{CEO}	Collector Cut-off Current (I_B = 0)	V_{CE} = - 30 V			- 0.7	mA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{EB} = - 7 V			- 5	mA
$V_{CER(sus)}$*	Collector-emitter Sustaining Voltage (R_{BE} = 100 Ω)	I_C = - 200 mA	- 70			V
$V_{CEO(sus)}$*	Collector-Emitter Sustaining Voltage (I_B = 0)	I_C = - 200 mA	- 60			V
$V_{CE(sat)}$*	Collector-emitter Saturation Voltage	I_C = - 4 A I_B = - 0.4 A I_C = - 10 A I_B = - 3.3 A			-1 -3	V V
V_{BE}*	Base-emitter Voltage	I_C = - 4 A V_{CE} = - 4 A			- 1.8	V
h_{FE}*	DC Current Gain	I_C = - 4 A V_{CE} = - 4 V I_C = - 10 A V_{CE} = - 4 V	20 5		70	
f_T	Transition-Frequency	I_C = - 0.5 A V_{CE} = 5 V	4			MHz

* Pulsed: Pulse duration = 300 µs, duty cycle 1.5 %

TO-3 (H) MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		11.7			0.460	
B	0.96		1.10	0.037		0.043
C			1.70			0.066
D			8.7			0.342
E			20.0			0.787
G		10.9			0.429	
N		16.9			0.665	
P			26.2			1.031
R	3.88		4.09	0.152		0.161
U			39.50			1.555
V		30.10			1.185	



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